

ABSTRACT

An optical scanner which can realize target trajectory tracking machining at a high speed and with a high accuracy. In a servo control circuit controlling the operation of an X-axis scanner for positioning a mirror and the operation of a Y-axis scanner for positioning another mirror, sine wave response is performed at a specific frequency on feedback control for each axis so that the gain characteristic and the phase characteristic of the feedback control are estimated. This arithmetic operation processing is performed by a microprocessor prior to machining, and the results of estimation of the two axes are stored as data for each frequency. In the stage of machining, the results of estimation in terms of the gain characteristic and the phase characteristic are used for correcting the amplitude and phase of a sine wave of a target trajectory in order to cancel each characteristic.